

PATENT APPLICATION

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**DUAL FUNCTION INSULATING HOLDER  
FOR BOTTLE OR CAN**

Tom Beggins

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## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention.**

[0001]

The present invention relates to improvements in holders for maintaining cold containerized liquids in a cool state and more particularly pertains to a new and improved lightweight portable holder for either a bottle or a can.

### **2. Description of Related Art.**

[0002]

A number of structures for insulating containers have been proposed in the prior art. Perhaps the most familiar structure is the cylindrical foam jacket or sleeve conventionally used to cool standard cylindrical cans containing beer, soda and the like. Such devices are typically inadequate and only partially effective when it comes to a bottle. Other structures exhibit practical drawbacks in that they leave the bottle contents partially exposed or employ cumbersome attachment mechanisms such as mechanical clasps or snaps.

[0003]

Applicant's U.S. Patent No. 5,390,804 discloses a bottle insulating device having a lower cylindrical enclosure which telescopically receives an upper enclosure having a dome-shaped upper end and an opening therein of a diameter selected to determine the extent to which the upper enclosure slides down the bottle neck and, hence, the extent to which the upper enclosure extends into the lower enclosure.

[0004]

Applicant's U.S. Patent No. 6,554,155 discloses an insulating device for bottles having a lower cylindrical enclosure which telescopically receives an upper enclosure having a dome-shaped upper end, the upper and lower enclosures being provided with mating threads adapted to achieve a plunge insertion and sealing feature.

[0005]

While these structures exhibit advantages over other prior art cooler devices, it has become apparent to applicant that further improvements could provide even a more useful and effective cooler apparatus, especially in the provision of a single apparatus that can accommodate both a bottle and a can.

#### SUMMARY OF THE INVENTION

[0006]

An insulating holder having a lower cylindrical enclosure receives an upper cylindrical enclosure which has a dome-shaped upper end. The upper and lower enclosures fit together by the upper enclosure sliding into the lower enclosure. When the upper enclosure is inserted into the lower enclosure with the dome-shaped upper end on top, the insulating holder accommodates a variety of different sizes of beverage bottles. When the upper enclosure is inserted into the lower enclosure with the dome-shaped end, the insulating holder accommodates a variety of different sized beverage cans inserted into the upper enclosure.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0007]

The exact nature of the present invention, as well as its objects and advantages, will become readily apparent upon consideration of the following detailed description in

conjunction with the accompanying drawings in which like reference numerals designate like parts throughout the figures thereof and wherein:

[0008]

Figure 1 is a perspective view of a preferred embodiment of the invention.

[0009]

Figure 2 is a cross-sectional view of Figure 1 taken along line 2-2.

[0010]

Figure 3 is a cross-sectional view of Figure 1 taken along line 3-3.

[0011]

Figure 4 is a cross-sectional view of an alternate embodiment of the present invention taken along a line 2-2.

[0012]

Figure 5 is a cross-sectional view of another alternate embodiment of the present invention taken along a line 2-2.

[0013]

Figure 6 is a cross-sectional view of yet another alternate embodiment of the present invention taken along a line 2-2.

[0014]

Figure 7 is a cross-sectional view of yet another embodiment taken along a line 2-2.

[0015]

Figure 8 is a cross-sectional view of yet another embodiment of the present invention taken along a line 2-2.

[0016]

Figure 9 is a cross-sectional view of the upper and lower enclosures engaged to hold a can, the upper enclosure being reversed from that shown in Figure 2.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017]

Figure 1 illustrates an insulating holder 11 of a first preferred embodiment, which includes a lower cylindrical enclosure 13 and an upper cylindrical enclosure 15. Both the upper enclosure 15 and the lower enclosure 13 are preferably formed out of a relatively rigid insulating material such as, for example, Styrofoam, which provides structural integrity as well as insulating properties. Both the upper enclosure 15 and lower enclosure 13 are shown installed about a bottle 17 (in phantom). The bottle 17 is generally formed to have a side and a neck, which neck generally increases in diameter from the top capped part to a shoulder area (not shown). The general construction of the upper and lower enclosures 15 and 13, respectively, are more completely described in applicant's United States Patents No. 5,390,804 and 6,554,155, the disclosures of which are both incorporated herein by reference.

[0018]

The upper enclosure 15 has dome-shaped top 22. It is inserted into the lower cylindrical-shaped enclosure 13. This insertion is guided and assisted by a male/female thread arrangement 19/20 formed on the inside of the lower cylindrical enclosure and on the exterior surface of the upper cylindrical enclosure 15. Upper cylindrical enclosure 15 has a circular aperture 21 in the symmetrical center of its domed top 22, which is shaped to rest on the shoulder of a bottle 17 being held by the apparatus.

[0019]

As is shown in Figure 2, a plurality of shims 23 are located on the interior surface of the upper cylindrical enclosure. As more clearly shown in Figure 3, the shims 23 are integral with the interior surface of upper enclosure 15. Each shim is constructed in the form of an open blister. The dimensions of upper enclosure 15 and the shims 23 therein are such that a

variety of bottle sizes can be accommodated by the upper enclosure 15 when it inserts into the lower enclosure 13.

[0020]

The first thread means 20 located on the inside of the lower cylindrical enclosure 13 and the second thread means 19 formed on the lower portion of the exterior surface of the upper cylindrical enclosure 15 are constructed so that the upper enclosure 15 can be inserted into the lower cylindrical enclosure 13 with the second circular rim end of the upper enclosure 15 going into the lower cylindrical enclosure 13 first, as shown in Figure 1, or with the first dome-shaped end of the upper enclosure 15 going into the lower cylindrical enclosure 13 first, as shown in Figure 9.

[0021]

With the first dome-shaped end of upper enclosure 15 being inserted into the lower enclosure 13, as shown in Figure 9, a canned beverage container 51 may be firmly held within the interior of the upper cylindrical enclosure by the shims 23 which extend from the circular rim second end of enclosure 15 to the start of the dome-shaped first end of enclosure 15, as more clearly shown in Figure 2.

[0022]

By this construction, the insulating holder of the present invention, as illustrated in Figures 1, 2, 3 and 9, can be used to hold the bottle 17 by having the upper cylindrical enclosure inserted into the lower cylindrical enclosure in one direction and hold a can 51 by reversing the direction of insertion of the upper cylindrical enclosure into the lower cylindrical enclosure.

[0023]

Other means of retaining the upper enclosure 15 and the lower enclosure 13, other than the first and second thread means illustrated in Figures 1, 2, 3 and 9, may be utilized to advantage in the present invention.

[0024]

Figure 4 illustrates an alternate preferred structure 12 for engagement between the upper enclosure 15 and the lower enclosure 13. The structure is a plurality of circumferential grooves, a first series of circumferential grooves 25 located on the inside of the lower cylindrical enclosure 13. A circumferential ridge 27 located at the second circular rim of the upper enclosure 15 is adapted to engage with the circumferential grooves 25 and hold the upper enclosure 15 in place, once inserted into lower enclosure 13.

[0025]

Another alternate embodiment 14 illustrated in Figure 5 utilizes a first series of circumferential grooves 29 on the inside of lower enclosure 13 and a second series of circumferential grooves 31 on the lower portion of the exterior surface of the upper enclosure 15. The first series of circumferential grooves 29 on the inside of the lower cylindrical enclosure 13 and the second series of circumferential grooves 31 on the outside of upper enclosure 15, which may start at the circular rim second end and extend as far as the start of the domed portion of upper enclosure 15, engage each other to hold the upper enclosure 15 within lower enclosure 13.

[0026]

Another alternate embodiment 16 illustrated in Figure 6 utilizes a first series of circumferential undulations 33 on the inside of the lower cylindrical enclosure 13. A second series of circumferential undulations 35 are located on the lower portion of the exterior

surface of upper enclosure 15, preferably extending from the circular rim second end of upper enclosure 15 close to the start of the domed-shaped first end of upper enclosure 15.

[0027]

Yet another embodiment 18 is illustrated in Figure 7. This embodiment utilizes a handle 39 mounted to the outside surface of the lower enclosure 13 by an adhesive 45, for example. Handle 39 has a latch 43 which pivots with respect to handle 39 so that the engagement edge 41 of latch 43 makes contact with a series of circumferential grooves 37 formed on the lower portion of the exterior surface of upper enclosure 15 when upper enclosure 15 is inserted into lower enclosure 13. The latch 43, by way of its engaging edge 41, maintains upper enclosure 15 within lower enclosure 13.

[0028]

Another alternate embodiment 22 is illustrated in Figure 8. Here, the lower enclosure 13 has a latch mechanism 45 attached thereto by way of adhesive or other convenient means. Latch mechanism 45 has an engaging edge 49, which engages a series of circumferential grooves 47 formed on the lower portion of the exterior surface of upper enclosure 15. Latch 45 thus maintains upper enclosure 15 within lower enclosure 13 once inserted therein.

[0029]

The embodiments 13, 14, 16, 18 and 22 described above with respect to Figures 4, 5, 6, 7 and 8 are all capable of functioning to hold either a bottle or a can while maintaining the temperature of the beverages contained therein, as described above. When a bottle is to be held by the insulating holder, the upper enclosure 15 is inserted into the lower enclosure 13 over the bottle with the circular rim second end of upper enclosure 15 inserted first. When a can is to be held by the insulating holder, the upper enclosure 15 is inserted into the lower enclosure 13 with the first dome-shaped end of upper enclosure 15 inserted first.